



## **Memorandum**

*To: Victor Ketellapper, EPA RPM Libby Team Lead*

*From: Nick Raines, CDM Libby Field Investigation Manager*

*Date: June 29, 2010*

*Subject: 2010 Libby Public Schools Investigation Plan*

During previous investigations, vermiculite was identified within isolated areas at several of the public schools within Libby. As a result, CDM Federal Programs Corporation (CDM) was tasked to complete a full detailed investigation (DI) at the five major public schools in Libby: Libby High School (150 Education Way), Libby Middle School (101 Ski Rd), Libby Elementary School (700 Idaho Ave), Kootenai Valley Head Start (247 Indian Head Rd), and the Administrative Building (724 Louisiana Ave).

In order to determine if immediate removal action is required, and to expedite any impending removal action, the investigations will be completed in two separate phases. The first phase will be limited to a visual inspection of all traditional specific-use areas (SUAs). The second phase will include all remaining DI activities.

This technical memorandum summarizes the inspection objectives and procedures that will take place at the schools.

### **Previous Exterior Investigations and Removals**

The schools within operable unit 4 (OU4) have been the focus of many previous investigations, and in some cases removal activities. Previous investigation activities include Phase 1, Contaminant Screening Study, interior and exterior visual inspections, and activity-based sampling at each of the schools. In addition, limited removal activities were completed at Libby High School, Libby Middle School, Libby Elementary School, and Head Start. The results of these investigations and removal activities are summarized in the Draft OU4 RI Report (CDM 2010a).

### **Investigation Objective and Limits**

The primary objective of this investigation is to determine the extent of Libby amphibole asbestos and source materials present at Libby Public Schools.

The first phase of investigation activities will be limited to a visual inspection of the soils within traditional SUAs (e.g., driveways, parking areas, flowerbeds, planters, and defined play areas). Figures 1 through 5 indicate known SUAs that will be inspected. The

investigation team will also walk the entire property of each school to determine if additional SUAs are present. Any additional SUAs identified by the investigation team will be inspected.

The second phase of the investigation will include all remaining DI activities (visual inspection and soil sampling) of the entire exterior property of each school.

No interior spaces of the schools or other buildings on each property will be inspected as part of this investigation.

## **Procedures**

School investigation activities will consist of a pre-inspection meeting, visual inspection of SUAs, and remaining DI activities.

All field activities will be completed in accordance with the *General Property Investigation Sampling and Analysis Plan* (GPI SAP [CDM 2010b]).

### Pre-inspection Meeting

Prior to the start of investigation activities, the investigation field team will meet with the school superintendent, principals, and maintenance staff as applicable. The planned investigation activities and schedule will be discussed with the meeting attendees.

### Phase I - Visual Inspection

A visual inspection will be conducted within all traditional SUAs. All visible vermiculite inspections will be completed in accordance with Section 4.3.6.1 of the GPI SAP (included below). The number of points to be inspected in each area will follow DI visual inspection protocol as outlined in Table 4-2 of the GPI SAP (included below).

A visual vermiculite estimation form (VVEF) and a sketch will be completed for each school. An aerial photo will be utilized as the baseline for each sketch. Photographs will be collected for any areas where vermiculite is observed.

### Phase II - Detailed Investigation

A full DI will be completed at each school in accordance with the GPI SAP. Areas inspected during the first phase of this investigation will not be re-inspected during this phase. All areas within the property not defined as an SUA, will be considered common-use areas (CUA) based on the nature of use and maintenance.

A separate VVEF will be completed for this phase of the investigation. In addition, an exterior property inspection form (EPIF) and associated sketches will be completed for each school. A land survey will be utilized as the baseline for all Phase II sketches.

## **Health and Safety**

A health and safety assessment will be completed by the field team prior to the investigation and will be summarized on an activity hazard analysis form for general property

investigations. All investigative work will also be completed in accordance with the *CDM Libby Asbestos Project Health and Safety Plan* (CDM 2008).

### **Inspection Results**

A brief summary of investigation activities and results will be developed upon completion of the full investigation event. This summary will include all field documentation resulting from this investigation event.

### **References**

CDM. 2008. CDM Libby Asbestos Project Health and Safety Plan. Libby Asbestos Project, Libby, Montana. May.

\_\_\_\_\_. 2010a. Draft Operable Unit 4 Remedial Investigation Report. Libby Asbestos Project, Libby, Montana. April.

\_\_\_\_\_. 2010b. General property Investigation Sampling and Analysis Plan. Libby Asbestos project, Libby, Montana. April.

cc:

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### General Property Investigation SAP – Section 4.3.6.1

#### 4.3.6.1 Visual Inspection

Visual inspection of exterior soils will be completed in accordance with CDM-LIBBY-06 with the following exceptions:

- The number of point inspections to be completed per use area is defined in Table 4-2 (Detailed Investigation).

General Property Investigation SAP – Table 4-2

Detailed Investigation		
Area Type	Visual Inspection Protocol <sup>a</sup>	Soil Sampling Protocol <sup>b,d</sup> Maximum Area per Sample
SUA <sup>e</sup> (flowerbed, garden, play area, etc.)	1 PI/100 ft <sup>2</sup>	1,000 ft <sup>2</sup>
SUA <sup>e</sup> (driveway)	1 PI/200 ft <sup>2</sup>	6,000 ft <sup>2</sup>
CUA (yard, etc.)	1 PI/100 ft <sup>2</sup>	3,000 ft <sup>2</sup>
LUA (field, pasture, etc.)	1 PI/500 ft <sup>2</sup>	15,000 ft <sup>2</sup>
ISA (shed, carport, garage, crawlspace, etc.)	1 PI/100 ft <sup>2</sup>	use area
NUA (wooded area, etc.)	No Inspection	No Sampling

<sup>a</sup>A minimum of 5 points will be inspected per use area regardless of size.  
<sup>b</sup>All soil samples are 30-point composites.  
<sup>c</sup>Areas where vermiculite is observed within CUAs and LUAs will be segregated and sampled discretely.  
<sup>d</sup>Areas where vermiculite is observed will not be sampled.  
<sup>e</sup>Multiple SUAs of the same type (e.g., flowerbeds may only be combined with other flowerbeds) within the same general area may be combined to form one sample area.

SUA – specific-use area  
 CUA – common-use area  
 LUA – limited-use area  
 NUA – non-use area  
 ISA – interior surface area  
 PI – point inspection  
 ft<sup>2</sup> – square feet

FIGURE 1 - LIBBY HIGH SCHOOL (150 EDUCATION WAY)



FIGURE 2 - LIBBY MIDDLE SCHOOL (101 SKI RD)



Gravel Parking Area

Athletics Area  
(baseball diamond)

Gravel parking and  
driveway

Batting Cage

Gravel Parking Area

Seating Area

FIGURE 3 - LIBBY ELEMENTARY SCHOOL (700 IDAHO AVE)



Batting Cage

Play Areas

Play Areas

Flowerbed

FIGURE 4 - HEAD START (247 INDIAN HEAD RD)



Gravel Parking Area

Play Areas

Picnic Table

FIGURE 5 - ADMINISTRATIVE BUILDING (724 LOUISIANA AVE)



Flowerbed/  
landscape Areas

Gravel Parking Area

5 Brick Planters

Play Area